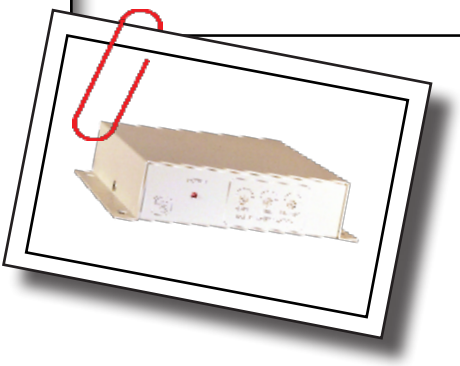
CCA-200

CABLE COMPENSATING VIDEO DA

Instruction Manual



COMPU-VIDEO SYSTEMS INC.

CVS

Thank you for purchasing one of our products. Please read this manual before using this product. When using this product, always follow the instructions contained in this manual, and pay attention to the safety information.

WARNING!

Do not expose this product to water, rain or moisture.
Doing this can result in electric shock or fire.

Never take this product apart or try to modify it.
Doing so is very dangerous and could result in electric shock.

Do not store this product near open flame.
Do not use this product near open flame or place lit or flammable items, such as candles, incense, ect., on it.

Do not place any containers filled with water or other liquids near this product.
Doing so could result in fire or electric shock if the liquid spills and enters the product or gets it wet. If a liquid spills near this product, unplug the product immediately.

Do not remove or insert the power supply with wet hands.
Doing so could result in electric shock.

Do not use the power supply in any of the following ways.
Doing so could result in fire or electric shock.
Modifying or heating the power cable
Damaging the power cable
Bending or tugging on the power cable unnecessarily
Knotting or kinking the power cable
Setting heavy objects on the power cable

When moving this product , first unplug the power supply from the outlet. Do not tug the cable or move this product with the power supply plugged into the outlet.
Doing so could damage the cable, possibly resulting in fire or electric shock.

To reduce the risk of electric shock, do not remove the cover.
No parts inside the product can be serviced by the user. If your product needs service contact:

Compu-Video Systems Inc. at (845) 737-7009.

Usage Environment
Avoid using or storing this product in areas such as those listed below. Doing so could damage the product or cause it to malfunction.
Areas exposed to heat or flames
Humid areas and areas where water is used

Handling this product
Do not drop or apply a strong force to this product or any included or connected parts.
Do not spill liquids around or inside this product or drop flammable objects around or inside it.

Power Supply
Only use the supplied power supply which is designed specifically for this product.
Do not allow the plug to come into contact with metal or water.

This Product is not designed for contact medical use
Do not use this product for medical applications that could result in patient contact.

WARNING!

The DA-12, has diode protection on their inputs. When used in conjunction with an outdoor camera or cable runs that run between buildings it is recommended that a lightning protection device be added to the cable. If lightning strikes in the area and causes a large enough voltage spike in the video feed cable, the input diode(s) will sacrifice themselves causing the unit to fail. If the spike is large enough the input video amplifier will be destroyed in addition to the diodes failing. These failures are not covered under warranty. This unit is designed to act as a protector for the input stage of your recording device, but will only offer a limited amount of protection. Installation of a lightning arrestor will greatly reduce any probability of failure of these units.
Use a seperate 12VDC @ 300 to 800ma power pack instead of an AC power source for optimum operation.

There are now several cameras on the market that do not have power isolation transformers in their power inputs. This can cause a serious problem with the DA-12 when a common AC transformer is used. If there is any doubt as to if you camera has this problem, please DO NOT use the same power pack for the camera and the DA-12. For any questions about the camera please contact your supplier. For any questions about the DA-12, please contact us at 845-737-7009 between the hours of 9AM and 5PM EST.

SURGE PROTECTION

This device has each input equipped with a surge protection device. In order to provide maximum effectiveness, you must connect the ground screw located on the rear by the power connector to an electrical ground or a cold water pipe ground.

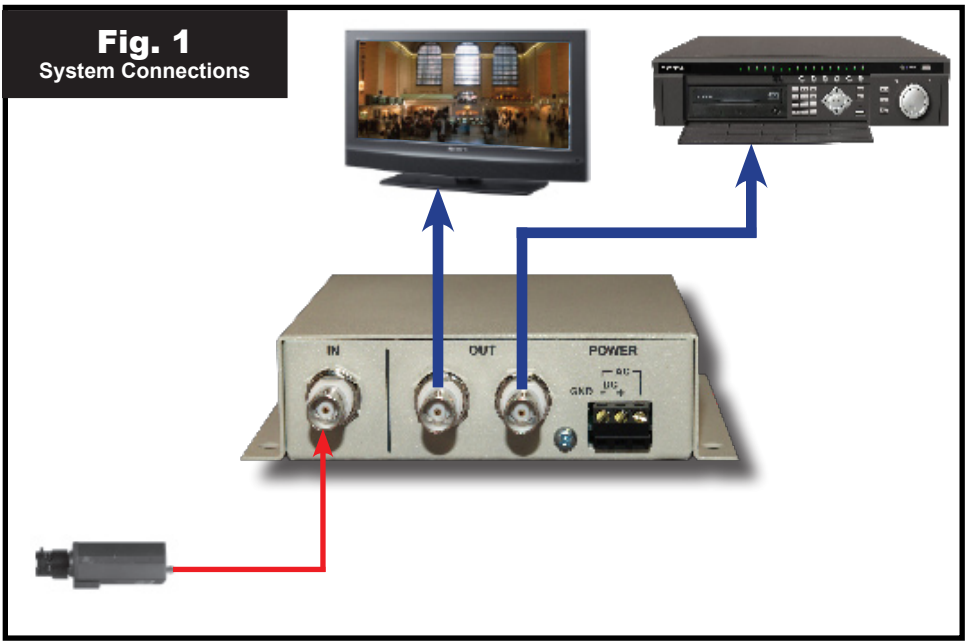
THIS IS NOT A LIGHTNING ARRESTOR. IT IS ONLY RATED FOR +/- 15 KV AIR AND +/- 8 KV CONTACT.

Due to changes in technology it is recommended that this unit be provided with no more then 12-18V AC or 12-18V DC where 12-18V DC is preferred

The CCA-200 is a Differential input, high performance 1x2 Color Video cable compensating Amplifier in a compact chassis. A differential input amplifier is used to minimize or eliminate ground loop problems along with adjustments for Gain, HF compensation and Cable compensation. The CCA-200 includes a 12VDC power pack but to save AC outlets the CCA-200 also operates from 18-24VAC and can be powered off of the AC Camera's power transformer. Designed for +1000 foot to +5000 foot coax cable runs. For less than 1000" use the LDA-100. For 1x1 operation use only the output needed and simply leave the unused one unterminated.

Please take the time to completely read this manual before attempting to install and align the CCA-200.

Fig. 1
System Connections



Tools and Equipment Requirements:

·1/8" straight blade screw driver
·12VDC-18VDC power adapter, UL Listed CVS part # CVT-1230 (Included) or an 18-24VAC camera
power supply
·Four # 8 x 3/8 sheet metal screws to mount unit on wall.
·Oscilloscope if available
·75 ohm terminator with "T" connector for oscilliscope

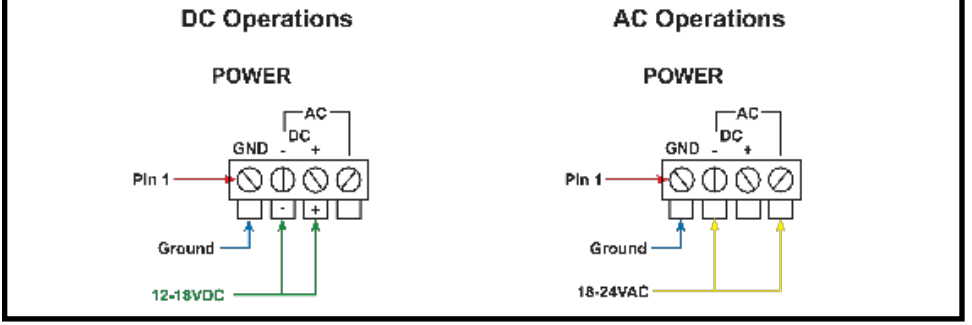
Installation:

Mount CCA-200: Before the unit is to be mounted you will need determine where to mount it, allowing for clearance for the BNC connectors and the cables. **Do not mount the unit over a heat source!** Using the four #8 screws, secure the unit to the mounting surface.

The CCA-200 can be mounted in an equipment rack if there are rear rails. The cover mounting holes will match up on one side with the EIA rack rails. Use whichever screws the rack setup needs to mount the CCA-200.

After the CCA-200 has been mounted, connect the power.

Fig. 2
Power Wiring Diagram



On the CVT-1230 power pack, the wire with the white trace is the Positive (+) and the unmarked wire is the Negative(-) lead. If you reverse these, the unit will not operate. Simply reverse the leads to make the unit function.

Using Figure 2, connect the CVT-1230 to the CCA-200. Once power connections are made, pin 1 and 4 should be open. Pin 1 will be used if a ground is tied to the unit.

If you are to use a 24VAC camera power pack use Figure 3 for the connections. Once connected pin 1 and 3 should remain open unless a ground is tied to pin 1.

Make sure that the wires are secure in the power connector. It is recommended that an earth ground is connected to the unit. **This cannot be the same as the (-) on the 12-18VDC or one side of the AC power.**

CCA-200 SIGNAL LEVEL ADJUSTMENT:

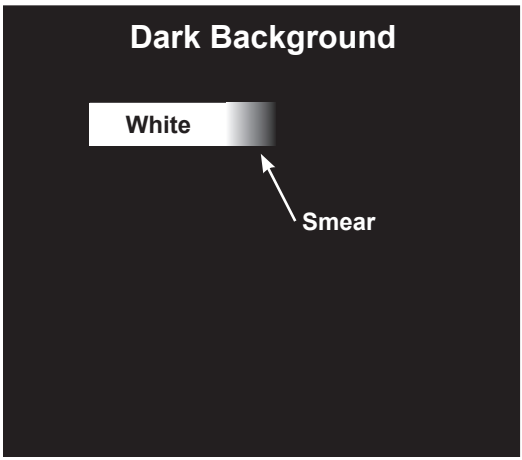
Without An Oscilliscope:

1) Turn all front panel controls to their minimum (-) Counter Clock Wise (CCW) positions

2) Connect the signal from the Video source that is located over 1000' away. Connect a monitor to one of the video outputs and make sure it is terminated in 75 ohms.

3) Pick an white object in the picture and while adjusting the "Line" pot, look for black or white smearing on the edge of the object (See Figure 4). You want to minimize or eliminate this smearing. Once this is done, adjust the "Gain" Clock wise (CW) to the approx. center position. Check for smearing on the white object. Touchh up the "Line" adjustment to optimize the smearing.

Fig. 3
Signal Level Adjust



4) Adjust the "Gain" control for a normal picture level with out adjusting the monitor's brightness or contrast leaving it a little on the bright side.

5) Looking at the fine detail in the picture, adjust the "Hi Freq" control CW to get the sharpest picture possible without it getting noisey. If no change is noted, leave at max CW.

With an oscilloscope connected to the output and the output cable terminated in 75 ohms,

1) Adjust the “Line” control CW to square off the sync.

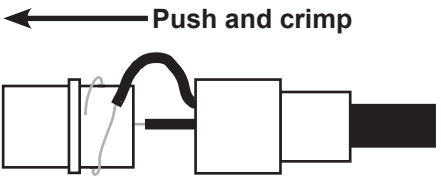
2) Adjust the “Gain” control CW so that the sync signal is 400mv or if a 1VPP test signal is available, adjust the “Gain” control for an overall level of 1VPP at the end of the cable.

3) Adjust the Hi-Freq. control CW until the sync edges just begin to peak.

Service: There are no servicble parts inside the unit. Please return to the manufacturer for proper repair of this unit. Instructions are included in the Warrenty section.

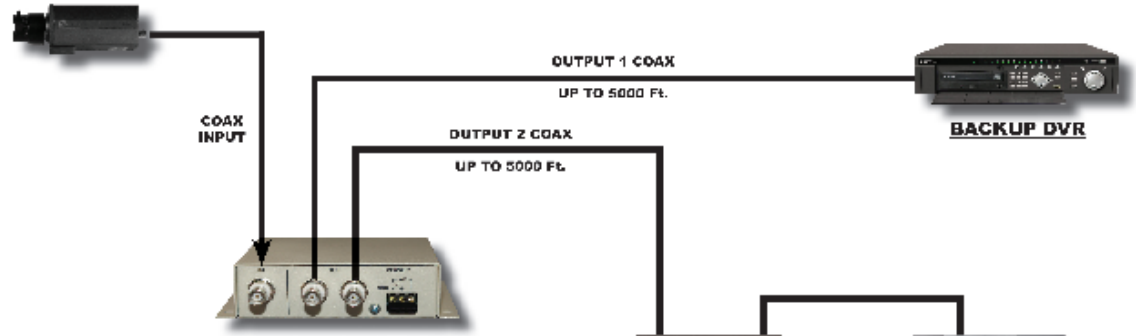
To Install a BNC connector on the CAT-5 cable:

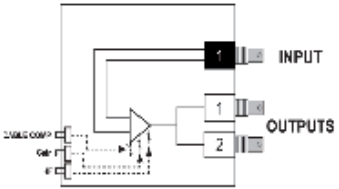
Fig. 3
BNC Connector Wiring



1 pair from CAT-5 cable

CCA-200





CCA-200:

- 1x2 Cable Comp. And Distribution Amp.
- Ground Loop Blocking Input
- Compensate up to 5000 feet of RG-59
- Variable Gain & High Frequency Controls

COMPU-VIDEO SYSTEMS INC.

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CCA-200

CABLE COMPENSATING AMPLIFIER, COAX

KEY FEATURES:

- ·1x2 cable comp. and distribution amp.
- ·AC or DC operation
- ·Industrial grade specifications
- ·High quality Color video performance
- ·Compensate up to 5000 feet of RG-59
- ·Compact size

The **CCA-200** is a Differential input, high performance 1x2 Color Video cable compensating Amplifier in a compact chassis. A differential input amplifier is used to minimize or eliminate ground loop problems along with adjustments for Gain, HF compensation and Cable compensation. The **CCA-200** includes a 12VDC power pack but to save AC outlets the **CCA-200** also operates from 18-24VAC and can be powered off of the AC Camera's power transformer.

SPECIFICATIONS

Video:		H Tilt:	<1%
Inputs:	Composite Video	V Tilt:	<1%
Input Connectors:	BNC	CCMR:	Typ. 60dB @ 4mHz
Max Input Level:	1.0VPP Into 75ohms	Cable Compensation:	Typ. .5-+15dB
Input Impedance:	75ohm +/-5% Isolated BNC	High Frequency Boost:	Typ. 0-+10dB
Outputs:	2x	**Power Requirements:**	
Output Connectors:	BNC	DC Operation:	12 to 18VDC Isolated Source
Output Impedance:	75ohm +/-5%	Power Supply:	(1) CVT-1230 Included
Gain In/Out:	Var to +5.0dB	AC Power:	18VAC to 24VAC 60Hz
1000 Feet:	Var to +5.0dB	AC Power Draw:	<1w
5000 Feet:	Var to +1.2dB	Power Connector:	Terminal Block
Diff. Gain:	<.5%	**Mechanical:**	
Diff. Phase:	<.5°	Size:	5.5"W x 5.25"D x 1.5"H
Frequency Response:	0-20mHz +/- .5dB	Weight:	<1.0lbs
Power Supply Hum:	<63dB	Environment:	32 to 105 Degrees

All Specifications Subject To Change Without Prior Notification

NOTES:

LIMITED WARRANTY:

Compu-Video Systems warrants this product and all accessories provided with it to be free of defects in material and workmanship for a period of 5 years after the original date of purchase. This warranty does not cover damage to the product resulting from accident, misuse or modification.

How The Warranty Works

If this product, or any of the accessories supplied with it, become defective within the warranty period, Compu-Video Systems Inc. will at its discretion repair, or replace the product with an equivalent unit of equal or higher value without charge. Overland return transportation from Compu-Video Systems Inc. to the user is free of charge.

How To Get Service

Please contact CVS by phone for return authorization number and then return the defective unit, transportation prepaid and a dated proof of purchase to:

Compu-Video Systems Inc.
37 Arden Drive
Garrison, NY 10524

The customer is responsible for all costs incurred from shipping the product back to Compu-Video Systems.

Obtaining Technical Help/Service

Web Site: www.compuvideosystems.com
Phone: (845) 737-7009
Fax: (845) 737-0426

In no event shall Compu-Video Systems Inc. be liable for Consequential Damages.

Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

COMPU-VIDEO SYSTEMS INC.
CVS